

**REMARKS**

Claims 1-33 are pending in the application.

Claims 1, 12, 18, and 21, are amended.

Reconsideration of claims 1-33 is respectfully requested.

**Substance of Interview**

The applicants wish to express their appreciation to the Examiner for the kind courtesy of a Telephone Interview on October 20, 2005, in which the Examiner indicated that the claims, as presently amended, are allowable.

**The Office Action**

Claims 1, 12, 18, and 24 were objected to for informalities.

Claims 1-6, 8, 20-21, 28, and 33 stand rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 14-19, 24-26, 29, and 35 of copending Application Serial No. 10/077,224.

Claims 1-11, 15-16, 18, 20-25, and 27-33 stand rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11, 14-16, 19, 25-31, and 35-41 of copending Application Serial No. 10/940,495.

Claims 18, 20-22, 27, and 30 were rejected under 35 U.S.C. §102(b) as being anticipated by Childers, et al. (U.S. Patent No. 5,876,664).

Claim 19 was rejected under 35 U.S.C. 103(a) as being unpatentable over Childers, et al.

Claims 23-24 and 28-29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Childers in view of Edwards, et al. (U.S. Patent No. 6,077,480).

Claim 19 was rejected under 35 U.S.C. §103(a) as being unpatentable over Childers.

Claims 25-26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Childers in view of Raniwala (U.S. Patent No. 6,645,429).

Claim 31 was rejected under 35 U.S.C. 103(a) as being unpatentable over Childers in view of Rickloff, et al. (U.S. Patent No. 5,445,792).

Claim 32 was rejected under 35 U.S.C. 103(a) as being unpatentable over Childers and Rickloff and further in view of Naperkowski.

Claims 1-12, and 13-17 were considered to be allowable if rewritten to address the objections of the base claims.

Claim 33 was allowed.

### **The Claim Objections**

Applicants have attended to each of the claim objections as suggested by the Examiner. In particular, claims 1 and 12 are amended to replace "along" with "through," as suggested by the Examiner. Claims 18 and 24 are amended to replace "area" with "region." Accordingly, it is respectfully requested that the objections be withdrawn.

### **The Double Patenting Rejection**

Applicants submit herewith a terminal disclaimer concerning commonly owned copending applications 10/077,224 and 10/940,495. It is respectfully requested that the double patenting rejection be withdrawn.

### **The References of Record**

US Patent No. 6,077,480 to Edwards discloses a vaporization system with a plurality of vaporizers **10**, each of which inject hydrogen peroxide vapor into a stream of carrier gas supplied by a generator **20**. The carrier gas flows through the respective vaporizer **10** and into an enclosure **32** via a supply line **30**.

US Patent No. 5,949,958 to Naperkowski discloses a flash steam generator **10** for a steam sterilizer **30**. The generator comprises a metal block **11** with a bore **12** therethrough which provides a non-linear flow path.

US Patent No. 5,445,792 to Rickloff, et al. is directed to a sterilization method. Room air is drawn into a vaporizer **14** for hydrogen peroxide and enters the interior of a cassette **26** situated within a warming cabinet **34**. Another stream of room air is heated by a heater **38** and circulates through the warming cabinet, around the exterior of the cassette. The two streams of air do not meet at a mixing zone.

U.S. Patent No. 6,645,429 to Raniwala discloses a sterilization system in which sterilizing liquid from a tank 32 is pumped to spray nozzles 42 in a food packaging room.

U.S. Patent No. 5,876,664 to Childers, et al. discloses in Figure 8 a liquid decontaminant vaporizer including heaters 60, 61, 62 and a tortuous path 64 therethrough.

**The Claims Distinguish Patentably  
Over the References of Record**

**Claim 1** has been amended to attend to the objections. Accordingly, it is submitted that **claim 1 and claims 2-6, 8-11 and 13-15 dependent therefrom** are now in condition for allowance.

**Claim 12** has been amended to attend to the objections. Accordingly, it is submitted that **claim 12, and dependent claims 7, 16, and 17** are now in condition for allowance.

**Claim 18** has been amended to call for a method of decontaminating a defined region, the method comprising pumping a first carrier gas stream through a duct to the defined region and in a passage different from the duct, converting a liquid into an antimicrobial dispersion in a second carrier gas stream. The formed antimicrobial dispersion is injected in the second carrier gas stream at a mixing zone defined in the duct upstream of the defined region to entrain the antimicrobial dispersion in the carrier gas.

The Childers reference makes no suggestion of generating an antimicrobial dispersion in a second carrier gas stream where this step is carried out in a passage different from the duct. Nor does Childers teach injecting a formed dispersion into the duct in which a carrier gas passes to a defined region. Rather, in Childers, the carrier gas flow goes through the vaporizer. The carrier gas mixes with the vapor as it forms in the vaporizer and cools the heated vaporizing surface. In Childers, there is no suggestion of forming an antimicrobial dispersion outside the main carrier gas flow and injecting the antimicrobial dispersion into the main carrier gas flow.

The secondary references cited against the dependent claims do not supply the deficiencies of the primary reference. In particular, Edwards, et al., cited

against claims 23-24 and 28-29, Raniwala, cited against claims 25-26, Rickloff, et al., cited against claim 31 and 32, and Napierkowski, cited against claim 32, make no suggestion of forming an antimicrobial dispersion outside the main carrier gas flow and injecting the antimicrobial dispersion into the main carrier gas flow.

Accordingly, it is submitted that **claim 18, and claims 19-20 and 22-32 dependent therefrom**, distinguish over the references of record.

**Claim 21** has placed in independent form and now calls for a method which includes pumping a first carrier gas through a duct to a defined region, and in a passage different from the duct, converting a liquid into an antimicrobial dispersion which includes hydrogen peroxide. A second carrier gas is blown through the passage with the hydrogen peroxide to create a positive pressure differential between the passage and the duct. The antimicrobial dispersion from the passage passes into a mixing zone defined in the duct upstream of the defined region to entrain the antimicrobial dispersion in the first carrier gas.

The Childers reference does not disclose blowing a second carrier gas through a passage with hydrogen peroxide to create a positive pressure differential between the passage and a duct. Rather, in Childers, the entire carrier gas flow goes through the vaporizer. The carrier gas mixes with the vapor as it forms in the vaporizer and cools the heated vaporizing surface.

Accordingly, it is submitted that **claim 21** distinguishes over the references of record.

**Comments on the Examiner's Statement of  
Reasons for the Indication of Allowable Subject Matter**

In the statement of reasons for the indication of allowable subject matter, the Examiner indicates that: "a first carrier gas flow is passed to a defined **regions** to be decontaminated." The Examiner should note that claim 12 does not require there to be more than one region.

The Examiner is, however, correct in stating that the references fail to teach the subject matter of claim 12.

The Examiner further indicates that: "Claim 33 includes the limitations for the method of decontaminating an enclosure by introducing a flow of an aqueous solution of a peroxy compound into a passage upstream of a bend, where the peroxy compound

mixes with a first carrier gas stream and **vaporized in the passage.**" The Examiner should note that claim 33 calls for "walls of the passage being heated to vaporize the aqueous solution." There is thus no strict requirement for the peroxy compound to be vaporized in the passage, as the Examiner has indicated.

The Examiner is, however, correct in stating that Rickloff fails to teach the subject matter of claim 33.

**Telephone Interview**

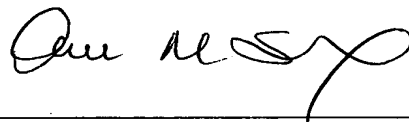
In the event the Examiner considers personal contact advantageous to the disposition of this case, he is requested to telephone the undersigned at (216) 861-5582.

**CONCLUSION**

For the reasons set forth above, it is submitted that all claims remaining in the application (claims 1-33) are now in condition for allowance. An early allowance of all claims is requested.

Respectfully submitted,

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